

so; they are all fully explained by the well-known properties of ordinary matter.

Vital force is, after all, only a combination of the forces with which the chemist is familiar, and "living" matter differs from "dead" matter, improperly so called, in containing a certain amount of potential energy derived from the Sun, and the phenomena of life all depend on the constant liberation of that potential energy.

It will be apparent, I think, that this distinction does not constitute the impassable chasm popularly supposed to exist between the animate and the inanimate.

NOTES ON SOME TERRESTRIAL ORCHIDS RECENTLY FOUND IN VICTORIA.

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Caladenia fimbriata.

In 1852, and on some few occasions afterwards, I noticed the leaves of this rare and most interesting plant very sparingly in the vicinity of Brighton, and I believe to have seen leaves likewise belonging to this Orchid in a few spots near St. Vincent's Gulf between 1848 and 1851, but never succeeded in getting a flower there. This desideratum has been happily supplied by Mr. C. French, of the Melbourne Botanic Gardens, who, in his entomological excursions never loses a chance of adding also to the knowledge of our floral treasures. It blooms soon after the last Autumnal Orchid (*Eriochilus autumnalis*) has passed away, and before many of the Spring-Orchids push forth their blooms: thus this interesting *Caladenia* was so long overlooked. (But here it may be remarked that this Orchid fits better into the genus *Eriochilus*, of which it has the habit and the glandless but downy surface of the labellum.) It stood on record only from South-West Australia, it being sent as a novelty nearly fifty years ago to Sir William Hooker, from Swan River, by the late Mr. James Drummond. Professor Lindley, in his famous work "Genera and Species of Orchideous Plants" (by which *opus* the foundation verte was laid to Universal Orchidology), referred this *Caladenia*, with *C. Menziesii*, to a separate genus designated, on account of the elongated erect and narrow inner lobes of the calyx, *Leptoceras*, a term used sectionally already for *C. Menziesii* by R. Brown. Professor Reichenbach transferred *L. fimbriata* to *Caladenia*. The lobes of the calyx are pale purplish, but the labellum (or sixth lobe) is dark purple and (what is abnormal in the genus) devoid of the glands, which suggested the generic name *Caladenia*. Out of Western Australia, the locality near Melbourne is the only one where this singular Orchid has as yet been found—at least flowering. Other terrestrial Orchids, which, in consequence of their very early blooming in the season, are apt here to be missed (besides those already mentioned) are *Prasophyllum Archeri*, found by Mr. Wooster at Mount Macedon, and by Mr. McKibbin on the Loddon), *Pterostylis*

acuminata (also in Mr. McKibbin's collection from the Loddon) *Pterostylis parviflora*, *P. vittata*, and perhaps *Lyperanthus Burnetti*, which Mr. Wooster obtained, for the first time outside of its Tasmanian home, at Kardinia Creek, Narree Warren. The Tasmanian *Prasophyllum dispectans* of Sir Joseph Hooker is also one of the very earliest of Spring Orchids. We have it not yet from Victoria, but Mr. Tepper discovered it flowering near Mount Lofty, Adelaide, in the beginning of May of this year.

Pterostylis obtusa—(R. BROWN).—Three specimens, one of which shows the separate tuft of broad radical leaves, from which off-shoot the next year's flowering stem will proceed. It is a small-flowered variety, and was found for the first time near Melbourne by Mr. French, viz., at Brighton. This species is more independent in the time of its flowering than most others of *Pterostylis*, as Mr. C. Walter gathered, in midsummer (January), this plant blooming in the Dandenong Ranges, the different clime there, compared to that of Port Phillip, accounting to some extent for the difference also in the time of flowering. I have not wished to spoil the only flower by dissection. The name "*obtusa*," inaptly given to this plant, refers solely to the labellum, the calyx-lobes being remarkably acute. *P. obtusa* was not known from Victoria till recently, though it has a rather wide range through New South Wales and Tasmania. It was figured last year in Mr. Fitzgerald's superb work on Australian Orchids.

Pterostylis aphylla—(LINDLEY):—Until lately only known from Tasmania, having probably been missed on account of its very early flowering in the season. It is not absolutely aphyllous, as a tuft of minute leaves precedes the development of the flowering stem. It is nearly akin to *P. parviflora*, and has been discovered by Mr. French at Gipsy Village, near Brighton, in the vicinity of Port Phillip Bay. Any amateurs who may be eager to contribute locally to the material for the Australian Flora should fix their attention prominently on the Orchids among phanerogams, as plants of this tribe have many rare species among them which only most scantily make their appearance, and pass away quickly, at least so far as each individual plant is concerned. That many species have a much wider range than hitherto anticipated is demonstrated by the fact that Mr. Robert Fitzgerald, in his recent Orchidologic tour to Western Australia, found there also our rare Victorian *Thelymitra Mackibbinii*, as I recognize it described anew among numerous Orchids (as *T. rubra*), of which the distinguished Orchidologist of Sydney has, as the result of his last journey, given an account quite lately in the *Gardener's Chronicle*, of London.